Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	)
Petition for Declaratory Ruling	)
that Pending Pioneer's	)
Preference Application Will Be	)
Considered in ET Dkt. No. 94-32	)

PETITION OF IN-FLIGHT PHONE CORP. FOR DECLARATORY RULING

In this petition, In-Flight asks the Commission to rule (a) that In-Flight's pending pioneer's preference application was filed by the deadline applicable to permit consideration in Dkt. 94-32, and (b) that the application will be considered in that docket. The company also requests that the Commission issue this ruling several months prior to August 10, 1995, the statutory deadline for adopting final rules in this docket. This will permit the agency to decide by that date whether to grant In-Flight the pioneer's preference it seeks. For the Commission's convenience, a copy of In-Flight's pending application is attached to this petition.

DISCUSSION

I. In-Flight Is Entitled to the Ruling It Requests Since Its Application Pertains to Docket 94-32 and Was Filed by the Deadline Applicable to an Application Seeking a Pioneer's Preference in the Communications Service To Be Established in that Docket

Section 1.402(c) of the Rules states that a pioneer's preference application will be accepted for filing in a particular docket as long as it is filed before "the Commission's Sunshine Notice is issued announcing initiation [of a docket] by . . . a

notice of inquiry . . . pertaining to . . . [a communications] service" to be established in that docket. In-Flight's application should be considered in Dkt. 94-32 pursuant to this Rule because that docket "pertain[s] to" the service for which In-Flight seeks a pioneer's preference, and because the application was filed before the Sunshine Notice was issued announcing initiation of that docket. Each of these matters is discussed below.

A. In-Flight's Application Pertains to the Service Proposed in Dkt. 94-32, GWCS, Since In-Flight Is Eligible Under the Proposed GWCS Rules to Apply for a GWCS License to Provide the Service Covered In the Company's Application

Docket 94-32 plainly "pertain[s] to" the service for which In-Flight seeks a pioneer's preference since the Rules the FCC has proposed in that docket would allow In-Flight to apply for a license to provide the service that is the subject of its application on the 4660-4685 MHz band. In Dkt. 94-32, the Commission proposes to adopt rules governing a new General Wireless Communications Service ("GWCS") on the 4660-4685 MHz band.[1/] Under the FCC's proposed GWCS rules, an applicant could apply for a GWCS license for any fixed or mobile transmission that can be provided in compliance with whatever technical standards govern GWCS licensees.[2/] An applicant could apply for either a regional license or a nationwide license depending on its transmission

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[1/] First Report and Order and Second Notice of Prop. Rulemaking in ET Dkt. No. 94-32, FCC 95-47 (rel. Feb. 17, 1995).

[2/] Id. at ¶ 60.

requirements.[3/] The only technical standards governing a GWCS licensee would be (a) a rule requiring licensee operation on a maximum of three channel blocks, each of which would be 5 MHz wide;[4/] (b) a rule limiting field strength at the licensee's service area boundary to 55 dBu;[5/] and (c) a rule requiring the licensee to attenuate its transmitter power output (P), for an emission at the edge of the 4660-4685 MHz band, to the lesser of 43 plus $10\log_{10}(P)$ or 80 dB.[6/] In-Flight could provide the service for which its application seeks a pioneer's preference as a GWCS licensee. The service it proposes is GWCS service since it is a mobile service. The service also can be provided under the proposed GWCS channelization plan and in compliance with the proposed technical standards governing GWCS licensees.

B. In-Flight Filed Its Application Prior to the Deadline Established by Section 1.402(c) for Those Seeking a Preference for a Service To Be Established in Docket 94-32

In-Flight's pioneer's preference application also was filed by the deadline set by Section 1.402(c) to qualify for consideration in Dkt. 94-32 because it was submitted before "the Commission's Sunshine Notice . . . announcing initiation [of] . . . a notice of inquiry" in that docket. In-Flight filed its application on October 30, 1992. The FCC did not issue a Sunshine Notice

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3/ Id. at ¶¶ 79.

4/ Id. at ¶ 77.

5/ Id. at ¶¶ 121-22.

6/ Id.

announcing its intention to vote on a notice of inquiry initiating Dkt. 94-32 until April 13, 1994, nearly 18 months later.[7/]

C. The Equities Favor Consideration of In-Flight's Application in Docket 94-32 Even If It Were Unclear that Its Application Pertains to GWCS and Was Filed by the Deadline Applicable to Applications Seeking a Pioneer's Preference for a Service To Be Established in that Docket

Although In-Flight filed its pending application in Dkt. 90-31 rather than Dkt. 94-32, this fact should not prevent consideration of the application in Dkt. 94-32. Dkt. 90-31 involved establishment of rules to govern a new Narrowband PCS Service. In October 1992, when In-Flight filed its application, the company hoped to provide the subject service by using spectrum then under consideration for allocation to Narrowband PCS. Although the Commission later allocated that spectrum to Narrowband PCS as it proposed, it simultaneously adopted regulations to govern that service which are incompatible with the service proposed by In-Flight.[8/]

The fact that In-Flight filed its application in Dkt. 90-31 should not bar its consideration in Dkt. 94-31 because the communications service for which the application seeks a pioneer's preference is identical in all relevant respects to the service In-Flight

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[7/] See Comm. Meeting Agenda (rel. April 13, 1994) (announcing Commission's intent to consider adoption of Notice of Inquiry in Dkt. 94-32).

[8/] The Commission allocated spectrum to Narrowband PCS and adopted rules to govern that service in a single order. See First Report and Order in Dkt. Nos. 90-314 and 92-100, 58 Fed. Reg. 42681 (1993), recon. 9 FCC Rcd. 1309 (1994), further recon. 75 Rad. Reg. (P&F) 2d 1240 (1994). Under Narrowband PCS Rules, the maximum bandwidth assignable to an individual licensee is less than the bandwidth required for the service proposed by In-Flight.

would provide as a GWCS licensee. While In-Flight would provide both live audio and video programming as a GWCS licensee rather than limit its fare to audio programming as it would have done as a Narrowband PCS licensee, this change in plans is irrelevant for purposes of deciding whether the application is properly considered in Dkt. 94-32. In the first place, the application on its face seeks a pioneer's preference for development of the service concept and for two specific technologies necessary to implement that concept. In-Flight's service concept permits transmission of multiple channels of live programming to airline passengers from land-based transmitters regardless of whether transmissions consist of audio programming alone or both audio and video programming. Similarly, each of the technologies developed by In-Flight to implement this service concept will be incorporated into infrastructure necessary to provide the service regardless of whether audio or video programming is provided. Moreover, In-Flight would have proposed a live video and audio service in its application as filed in Dkt. 90-31 if the amount of bandwidth under consideration in that docket for allocation to Narrowband PCS had been sufficient to accommodate both video and audio programming. But since that docket involved the allocation of just 3 MHz of spectrum, the bandwidth at issue was sufficient to accommodate audio programming alone.

In addition, no public policy would be furthered by declining to consider the application in Dkt. 94-32. The purpose of the application deadline is to reduce the risk that applications will

be filed by speculators.[9/] In-Flight did not file its application as a speculator. The company has worked continuously since early 1992 to find suitable spectrum to provide the innovative service it proposes. While initially it had hoped to provide service as a Narrowband PCS licensee, it began discussions with several government agencies almost immediately after the Commission adopted Narrowband PCS regulations which prevented provision of the service as a Narrowband PCS licensee. The purpose of these discussions was to seek to develop a band sharing plan involving spectrum presently used by these government agencies that would accommodate both the service In-Flight proposes as well as the agencies' need for the band. Unfortunately, In-Flight was unable to reach an agreement with these agencies.

In-Flight next sought unsuccessfully to persuade the Commission in Dkt. 94-32 to allocate either the 2390-2400 MHz band or the 4660-4685 MHz band to the service it proposes. It did so by submitting written comments in this docket urging the agency to allocate one of these two bands either to the specific service that In-Flight proposes or to a somewhat broader, Aeronautical Mobile Service.[10/] Rather than take the action that In-Flight had

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[9/] See Pioneer's Pref., Memo. Op. and Order in Recon., 7 FCC Rcd. 1808, 1812 (1992).

[10/] See Reply Comments of In-Flight Phone Corp. in ET Dkt. No. 94-32 (Aug. 30, 1994) (comments in response to Notice of Inquiry); Comments of In-Flight Phone Corp. in ET Dkt. No. 94-32 (Dec. 19, 1994) and Reply Comments of In-Flight Phone Corp. in ET Dkt. No. 94-32 (Jan. 6, 1995) (comments in response to Notice of Prop. Rulemaking). See also Letter from Rodney L. Joyce to William F. Caton (ET Dkt. No. 94-32) (ex parte filing, Jan. 24, 1995) (continued...)

proposed, the Commission allocated the 2390-2400 MHz band to Unlicensed Data PCS and it allocated the 4660-4685 MHz band to GWCS subject to adoption of rules to govern licensing and operation of the service.[11/]

The fact that In-Flight filed its application in Dkt. 90-31 also should not stop the Commission from considering that application in Dkt. 94-32 since In-Flight had no reason to consider refiling its application with a Dkt. 94-32 caption prior to issuance of the Sunshine Notice on April 13, 1994 that relates to the latter docket. This is because there was no hint prior to April 13, 1994, that Dkt. 94-32 would pertain to the service which In-Flight proposes. The Notice of Inquiry instituted under the April 13 Sunshine Notice was adopted in response to legislation requiring the Federal Government to abandon 50 MHz of spectrum by August 1994. In compliance with that legislation, the Commerce Department, on February 10, 1994, had issued a report stating that the 4660-4685 Mhz band would be included in the 50 MHz of spectrum to be abandoned by the Government in August of that year. But that February 1994 report did not purport to advise the Commission about what types of communications service whose operation on that band the FCC should authorize. Nor did the FCC's Notice of Inquiry issued under the April 13, 1994 Sunshine Notice give any indication

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[10/](...continued)
(recommending allocation of the 4660-4685 MHz band to service that In-Flight proposes to offer).

[11/] First Report and Order and Further Notice of Prop. Rulemaking in ET Dkt. No. 94-32, supra.

that the Commission contemplated permitting licensees to provide the type of service which In-Flight proposes. Indeed, it is plain from the Notice of Inquiry that the Commission had no service in mind for this band at the time it issued the Notice. Rather than seek comments on any particular communications service, the agency instead merely asked for suggestions from commenters about what kinds of communications services commenters thought might appropriately be provided on this band.[12/]

II. The Commission Needs To Issue the Requested Ruling Several Months Prior to August 10, 1995, the Statutory Deadline for Issuing Final Rules in Docket 94-32, So that It Will Be In a Position to Decide By that Time Whether to Award a Preference to In-Flight

Not only should the Commission rule that it will consider In-Flight's application in Dkt. 94-32, it also should issue this ruling before August 10, 1995, so that it can decide whether to grant In-Flight a pioneer's preference at the same time it adopts regulations governing GWCS licensees. Commission policy is to announce a pioneer's preference grantee at the time it issues rules to govern the communications service to which that preference pertains.[13/] By law, the Commission must establish regulations to govern the new GWCS Service by August 10, 1995.[14/]

[12/] See Notice of Inquiry in ET Dkt. No. 94-32, 9 FCC Rcd. 2175 (1994).

[13/] See, e.g., Review of Pioneer's Pref. Rules, ET Dkt. No. 93-26, at ¶ 25 n.35 (rel. Mar. 1, 1995).

[14/] See 47 U.S.C. § 309(j)(10)(B)(iii) (stating that the Commission's authority to grant any license by auction will expire unless the agency has adopted, by August 10, 1995, all regulations required by 47 U.S.C. 925(a). Section 925(a), in turn, relates to (continued...)

In fact, the Commission needs to issue its declaratory ruling several months prior to August 10, 1995, so that it will have a record on which to decide whether to award In-Flight a preference by August 10. Prior to issuing a decision on whether to grant a pioneer's preference application, Section 1.402(e) of the Rules requires the Commission to issue a public notice inviting comments on the application from all interested parties. While several parties already have commented on In-Flight's application, the agency has not yet issued a public notice inviting comments from interested parties.

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[14]/ (...continued)
regulations governing non-government uses of the 50 MHz of spectrum abandoned by the Federal Government on August 10, 1994. The 4660-4685 MHz band is included in this 50 MHz of spectrum).

CONCLUSION

The Commission should issue a declaratory ruling that In-Flight's pending application for pioneer's preference will be considered in Dkt. 94-32. It should issue this ruling several months prior to August 10, 1995.

Respectfully submitted,

IN-FLIGHT PHONE CORP.

By _____

Rodney L. Joyce
Ginsburg, Feldman and Bress
1250 Connecticut Ave., N.W.
Washington, DC 20036
(202) 637-9005

Its Attorneys

William J. Gordon
V.P. Regulatory Affairs
In-Flight Phone Corp.
1146 19th Street, N.W., Suite 200
Washington, D.C. 20036

March 16, 1995

LAW OFFICES
GINSBURG, FELDMAN AND BRESS
CHARTERED
1250 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20036
TELEPHONE (202) 637-9000

CORRESPONDENT OFFICE
9, RUE BOISSY D'ANGLAS
75008 PARIS, FRANCE

February 25, 1993

RODNEY L. JOYCE
(202) 637-9005

TELECOPIER (202) 637-9195
TELEX 4938614

Dr. Thomas P. Stanley, Chief Engineer
Office of Engineering and Technology
Federal Communications Commission
2025 M Street, N.W., Room 7002
Washington, DC 20054

Re: Application of In-Flight Phone Corp. for Pioneer's Preference
ET Dkt. No. 92-100
PP-_____

Dear Dr. Stanley:

The enclosures which accompany this letter demonstrate technical characteristics of the multi-channel audio programming service that In-Flight has developed for airline passengers and are submitted as a supplement to In-Flight's pending application for a "pioneer's preference" in the licensing of this new service.[1/] The enclosures provide substantial additional evidence that In-Flight qualifies for a licensing preference under Commission rules awarding preferences to those who demonstrate that they have made a "significant investment"[2/] in developing an innovative communications service that will be provided by "a new technology. . . [which] significantly improve[s] spectrum efficiency. . . ."[3/]

Respectfully submitted,

Rodney L. Joyce
Counsel for In-Flight Corp.

Enclosures

1/ The application for pioneer's preference was filed with the Commission on October 30, 1992, but the Commission has not yet assigned it a file number.

2/ Report and Order in GEN Dkt. No. 90-217, 6 FCC Rcd. 3488, 3494 (1991).

3/ Id., 6 FCC Rcd. at 3492.

Description of Data Items Enclosed

1. Description of ABN Flight Testing Status

2. Plot of Transmit RF Spectrum. This is a measured plot of the Quadrature Amplitude Modulation (QAM) RF spectrum at 941 MHz. Nine channels of digitized audio are contained within the 81 kHz RF bandwidth. This plot shows the digitized audio data modulated using QAM and upconverted to the PCS band for transmission to aircraft.

3. High Power Amplifier Linearity Data. These are measured plots of the RF output versus input to the ABN High Power Amplifier (HPA) to be used at each ABN Ground Station. Data for both the 902MHz and 941MHz bands are included. Of significance is the high linearity of the HPA, required to successfully transmit the QAM waveform with little distortion.

4. Measured RF Front End Parameters. This measured data shows the performance of the ABN Airborne Low Noise Amplifier/Band-Pass Filter (LNA/BPF) front end of the Airborne receiver. Each of the six ABN 81.3 kHz bands was measured to prove that frequency and phase linearity, interferer rejection and noise figure performance is sufficient for the QAM waveform. Particularly, the spectrally adjacent air telephone service signal rejection is critical to system performance.

5. RF Downconverter Intermodulation Products. These measured data show the effect of a nearby signal on the intermodulation products generated by the RF Downconverter in the Airborne Receiver. This test shows that the spectrally adjacent air telephone service has been sufficiently rejected at the IF frequency (10.7 MHz) so as to not degrade detection of the ABN signal.

6. Digital Data Link Bit Error Rate Curves. These curves show the QAM waveform bit-error-rate performance for three different demodulators in the Airborne Receiver. The results indicate better-than-specification operation of the system in transferring digital audio data from ground to air.

7. Photographs:

1. ABN Ground Station High Power Amplifier
2. ABN Ground Station RF Band Pass Filters
3. ABN Ground Station RF Notch Filters
4. ABN Airborne Low Noise Amplifier/Band-Pass Filter Subassemblies (Two versions shown).
5. ABN Airborne Receiver Electronics Enclosure, shown open and populated with receiver subassemblies.
6. ABN Airborne RF Downconverter Subassembly
7. ABN Airborne QAM Demodulator Subassembly
8. ABN Airborne Diversity Switch Subassembly
9. ABN Airborne Audio Processor Subassembly
10. ABN Airborne Control Processor Subassembly
11. ABN Airborne Power Supply Module
12. ABN Airborne Enclosure sitting in Aircraft Electronics Bay Tray

Item 1

ABN Flight Testing Status and Description
24 February 93
Mike Keen, ABN System Engineer

Flight testing of the ABN system began February 16, 1993 in Melbourne, Florida. To date, approximately 6 hours of test time have been accumulated towards an expected total time of about 40 hours. Testing has shown the Diversity Switching algorithm and hardware to be intact, successful closure of the ground-to-air RF link and successful communication of the nine channels of digital audio.

A brief description of the testing configuration follows.

Purpose of Testing: Test 9 channels of live audio on board a flying airplane. Key features to be tested include audio processing, 9 channels, audio quality, switching between more than one ground station, airborne hardware configuration, ground station hardware configuration, studio sourcing of audio material.

Test System Layout:
The test system will consist of the following components (reference map below):

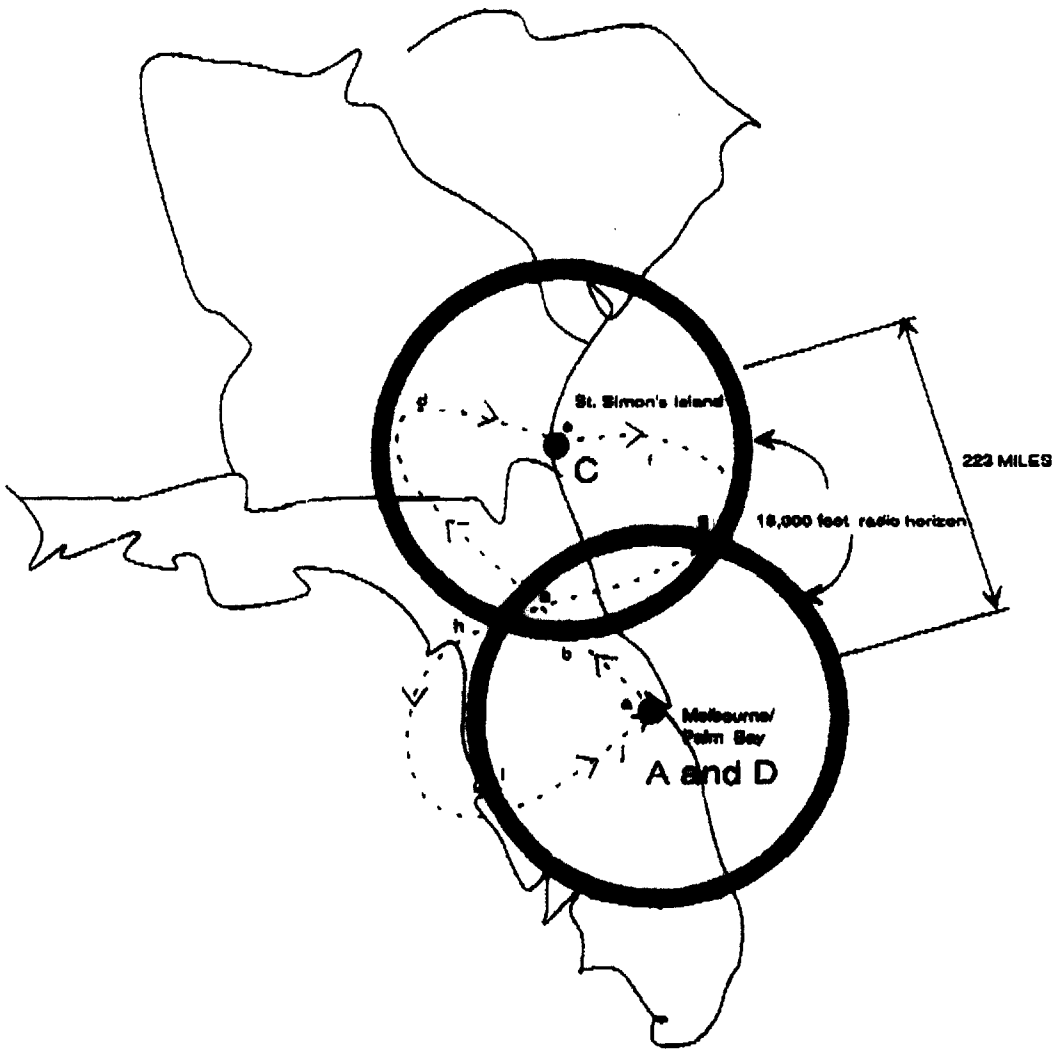
ABN Studio at Harris facilities, Palm Bay, Florida consisting of the following
- Audio Sources: Tape machines and such that generate the 9 channels of audio.
- Satellite Uplink: 256 kbps digital audio distribution source
- Satellite Transponder

First ABN Ground Station at Harris Corporation facilities in Palm Bay, Florida. Equipment Consists of
- Satellite Downlink receive equipment
- Dual Diversity Ground Station Ground-to-Air equipment transmitting on ABN channels B and D.

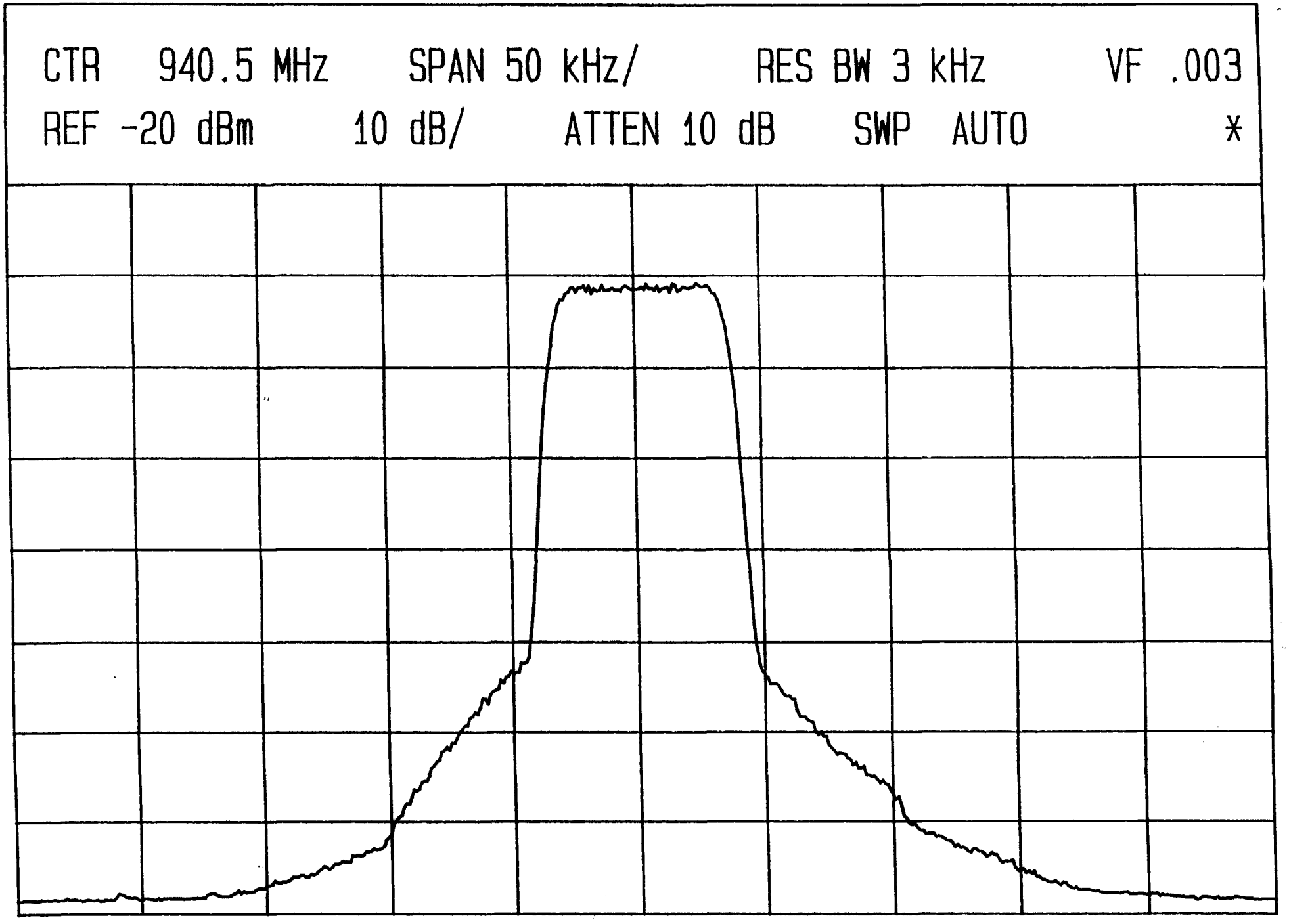
Second ABN Ground Station at St. Simon's Island, Georgia. Equipment Consists of
- Satellite Downlink receive equipment:
- Single Diversity Ground Station Ground-to-Air equipment transmitting on channel C.

Airborne ABN receive equipment consisting of
- Receive Blade Antenna installed on plane.
- Receiver Electronics: The ABN LNA/BPF and ARINC Box
- 9-channel Stereo Audio Switchbox.
- Headphone breakout box with multiple sets of headphones.
- PC terminal to monitor receiver functions.

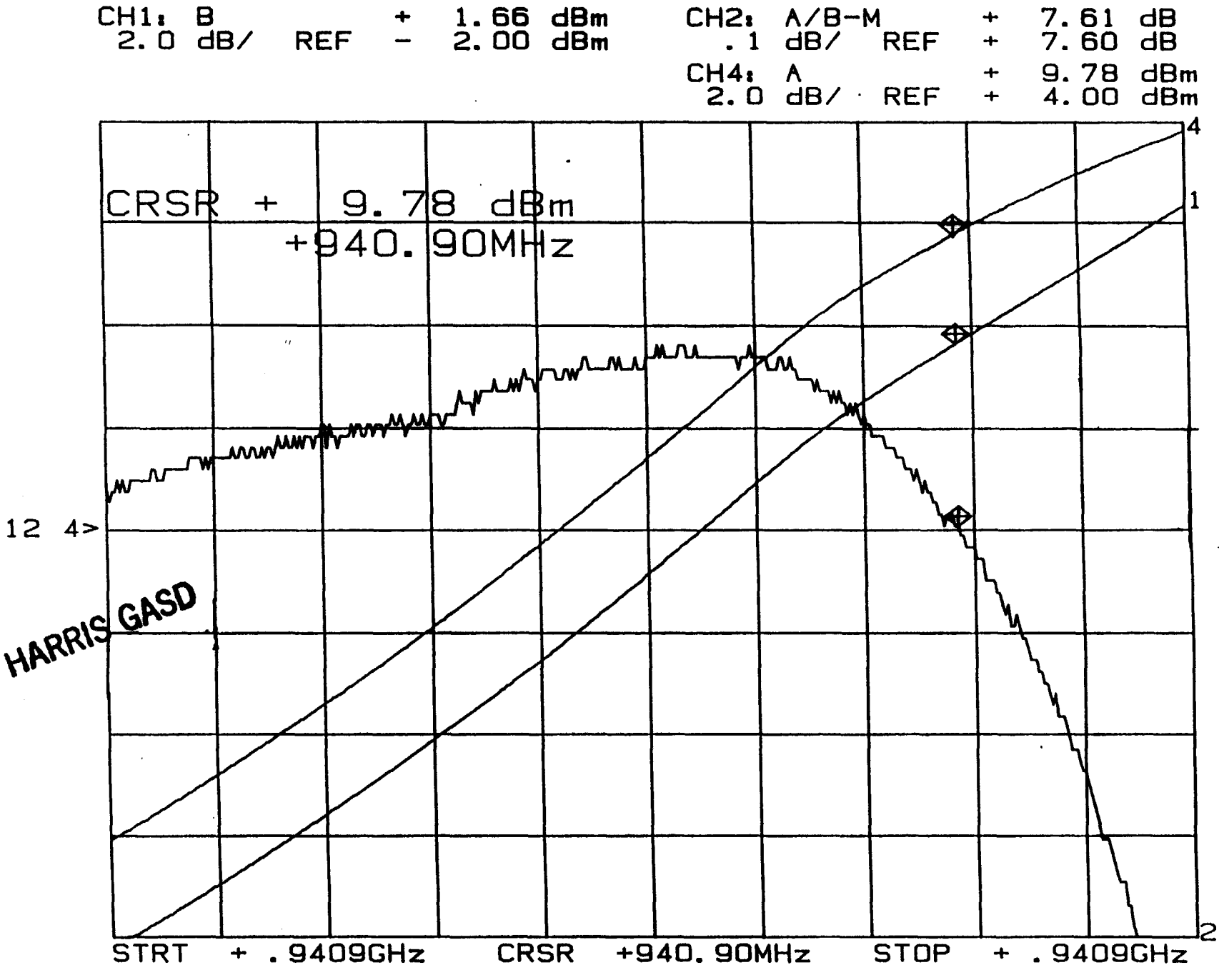
Data Collection
During the flight, the ABN Airborne Receiver will report status to a laptop computer which will display and record that data, along with a time-tag, to hard disk. Also, GPS data will be recorded so that the events during the test can be analyzed.


St. Simon's Island
C
222 MILES
18,000 feet radio horizon
Melbourne/
Palm Bay
A and D

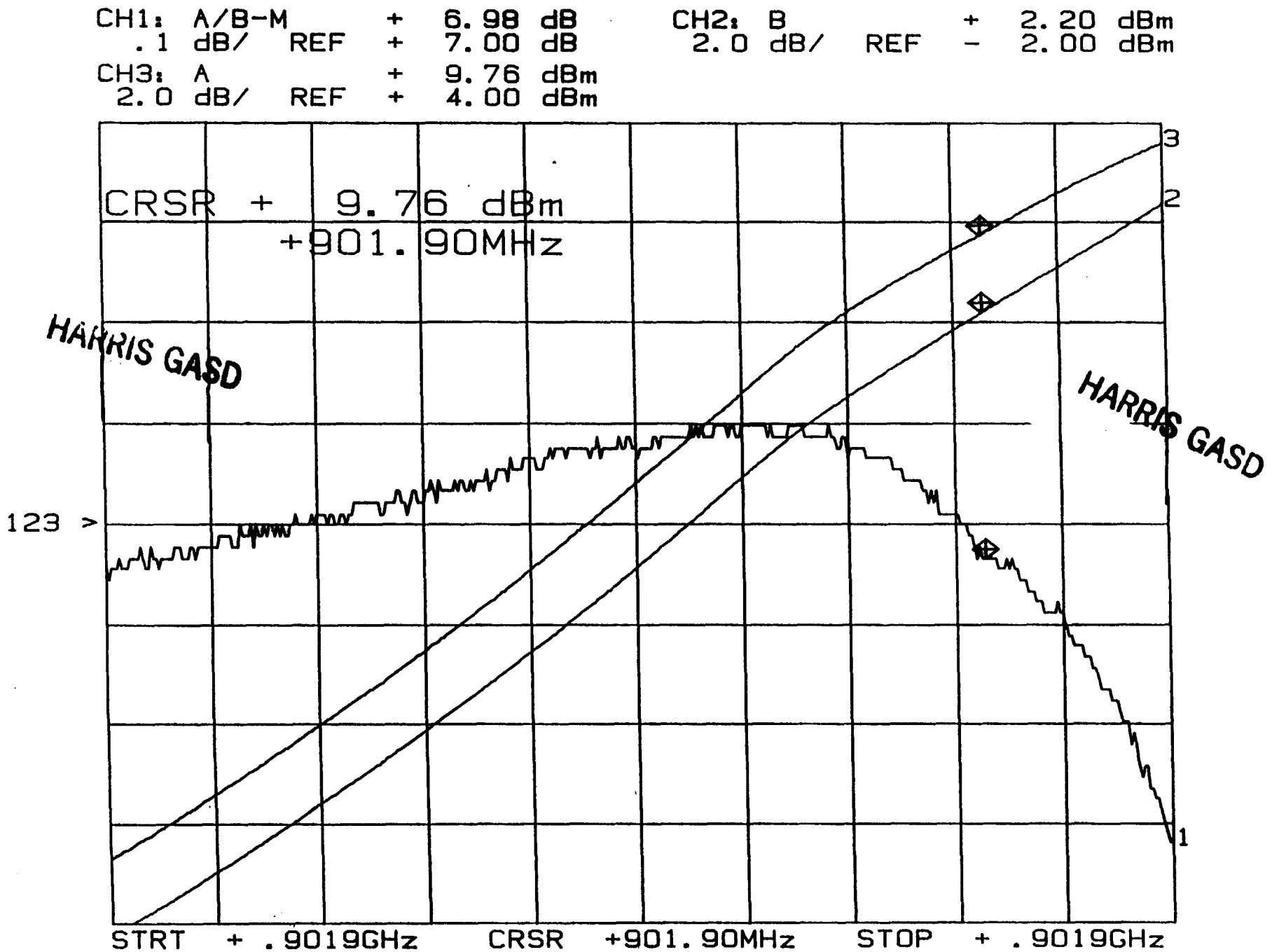
1-11 93



Item 2. Plot of Transmit RF Spectrum.



Item 3a. <u>High Power Amplifier Linearity Data.</u>



Item 3b. <u>High Power Amplifier Linearity Data.</u>

COLEMAN MICROVAVE CO.

P.O. BOX 247 EDINBURG. VIRGINA 22824 703-984-88

HARRIS GASD

CUSTOMER: HARRIS
SERIAL NO: 34203
SPEC NO: G-LPR-001 DATED 10/20/92
CMC PART NO: 305675
PURCHASE ORDER NO: 0244-2804057
S.O. NO: 6376

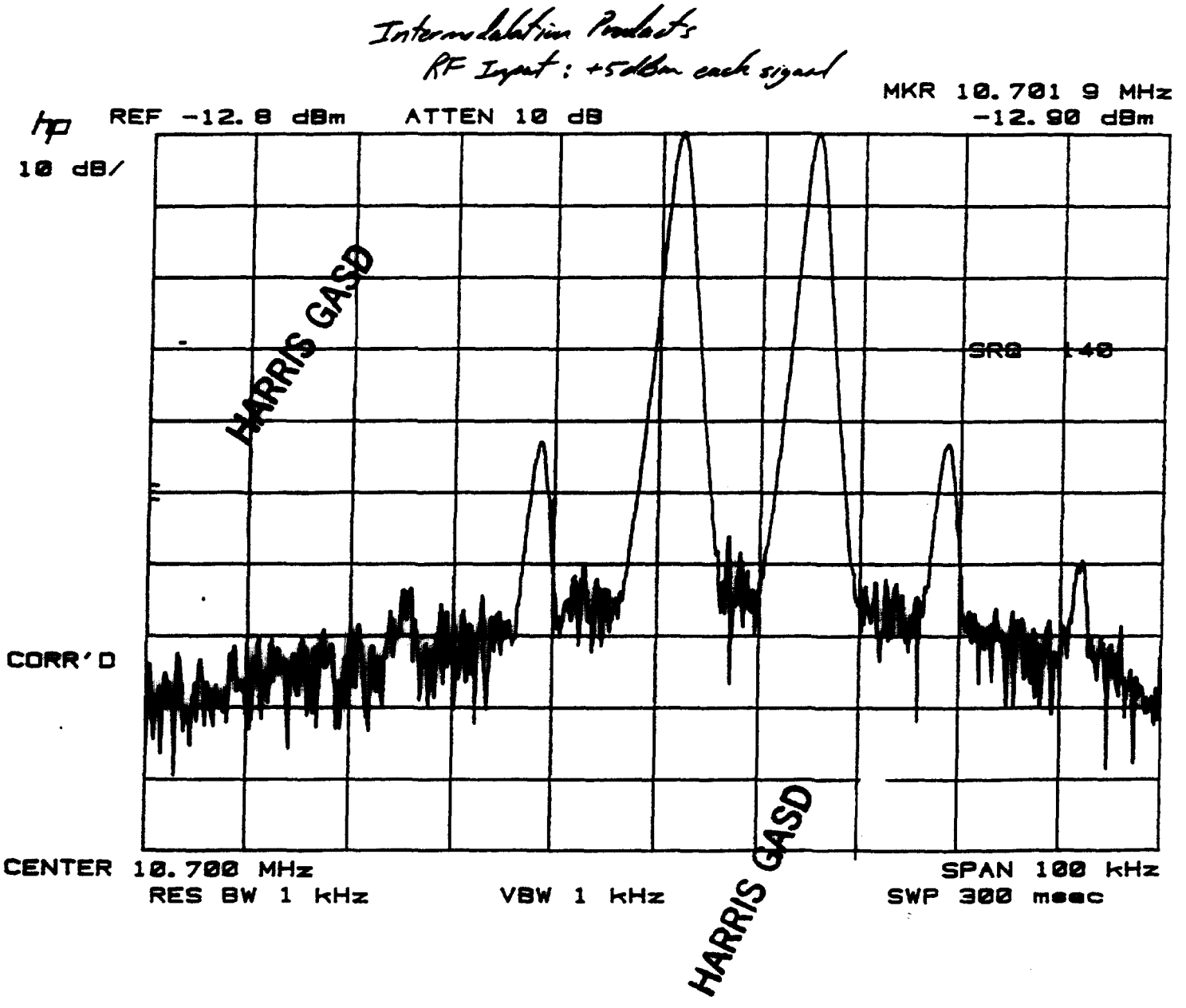
PARAMETER	FREQ(MHz)	SPEC LIMIT	DATA
AMPLITUDE FLATNESS	901-903 940-942	±0.1dB MAX/83 KHz	± 0.01 dB ± 0.01 dB
PHASE LINEARITY	901-903 940-942	±0.2 DEGREES MAX/83 KHz	± 0.03 DEGREE ± 0.02 DEGREE
INSERTION LOSS	901-903 940-942	0.7dB MAX 0.3dB MAX	0.52 dB 0.18 dB
VSWR	901-903 940-942	1.35:1 MAX	1.28:1 1.19:1
ATTENUATION	@ 1500 @ 2000 @ 3000	-40dB MIN -50dB MIN -50dB MIN	-58 dB -84 dB -84 dB
REJECTION	894-896	-30dB MIN	-31 dB

HARRIS GASD

TECH: D. Brenton
DATE: 12/22/92

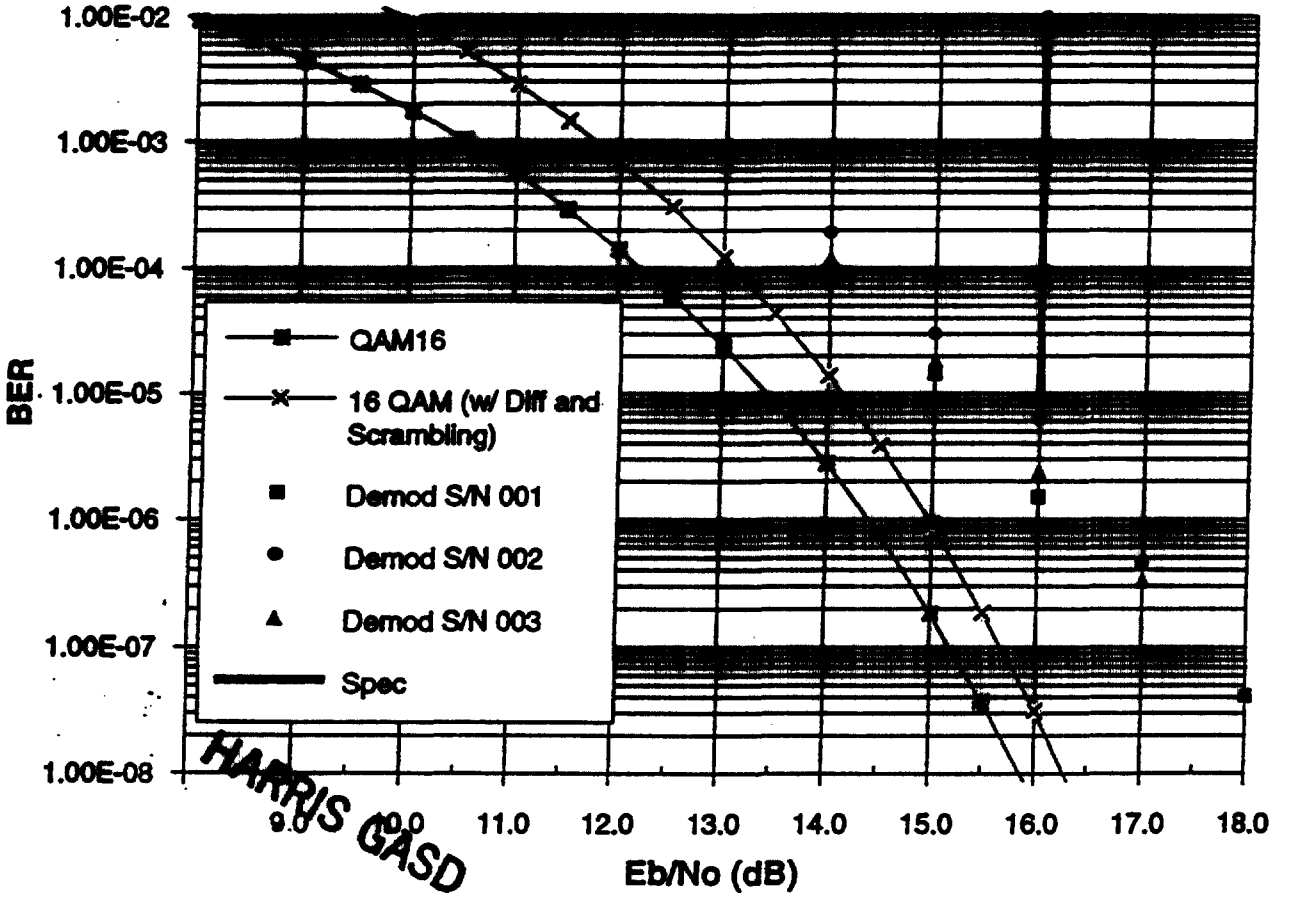
APPROVAL: David [signature]
DATE: DEC 22 1992

Item 5. RF Downconverter Intermodulation Products



Item 6. Digital Data Link Bit Error Rate Curves.

Modulator S/N 003



(2)

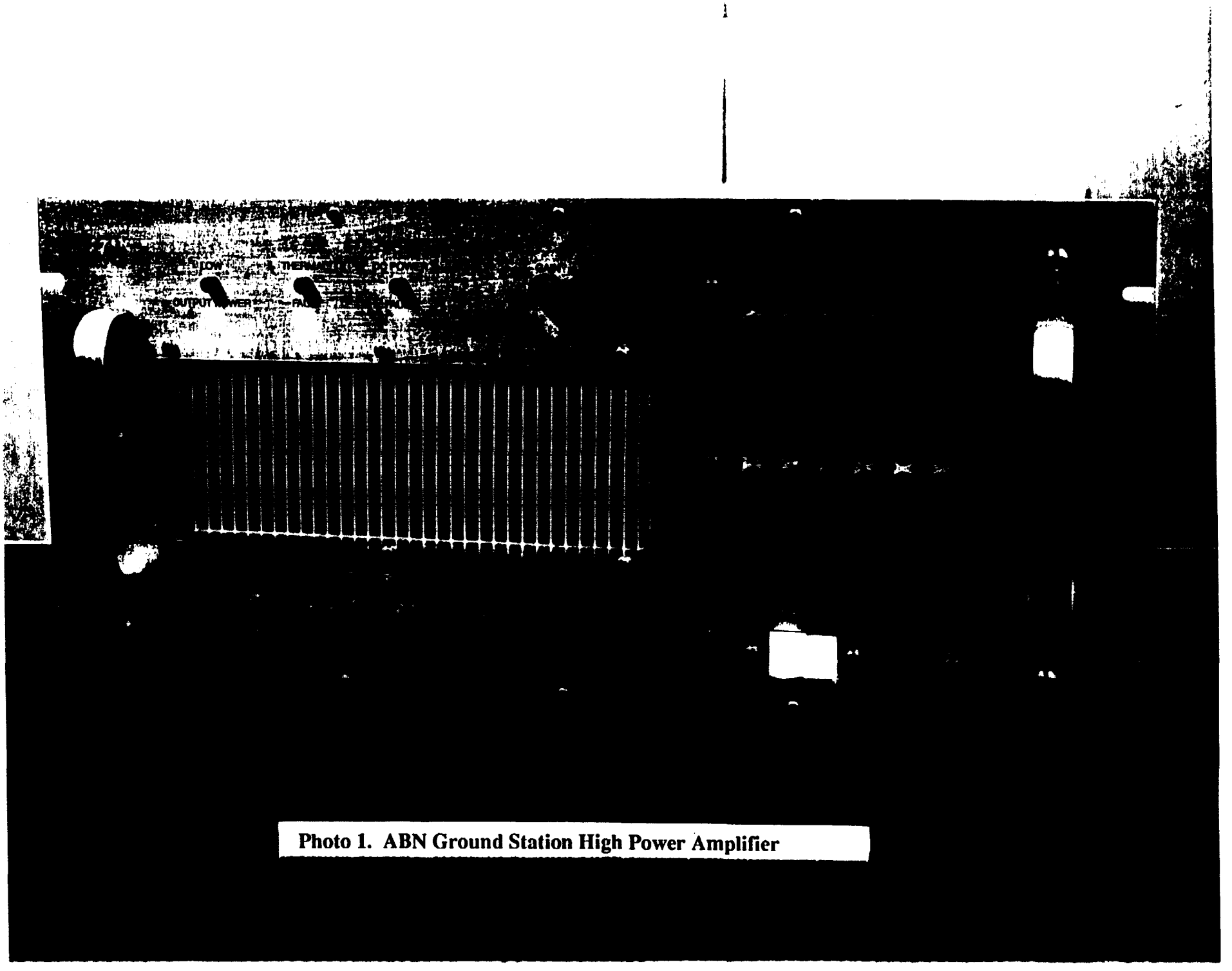


Photo 1. ABN Ground Station High Power Amplifier

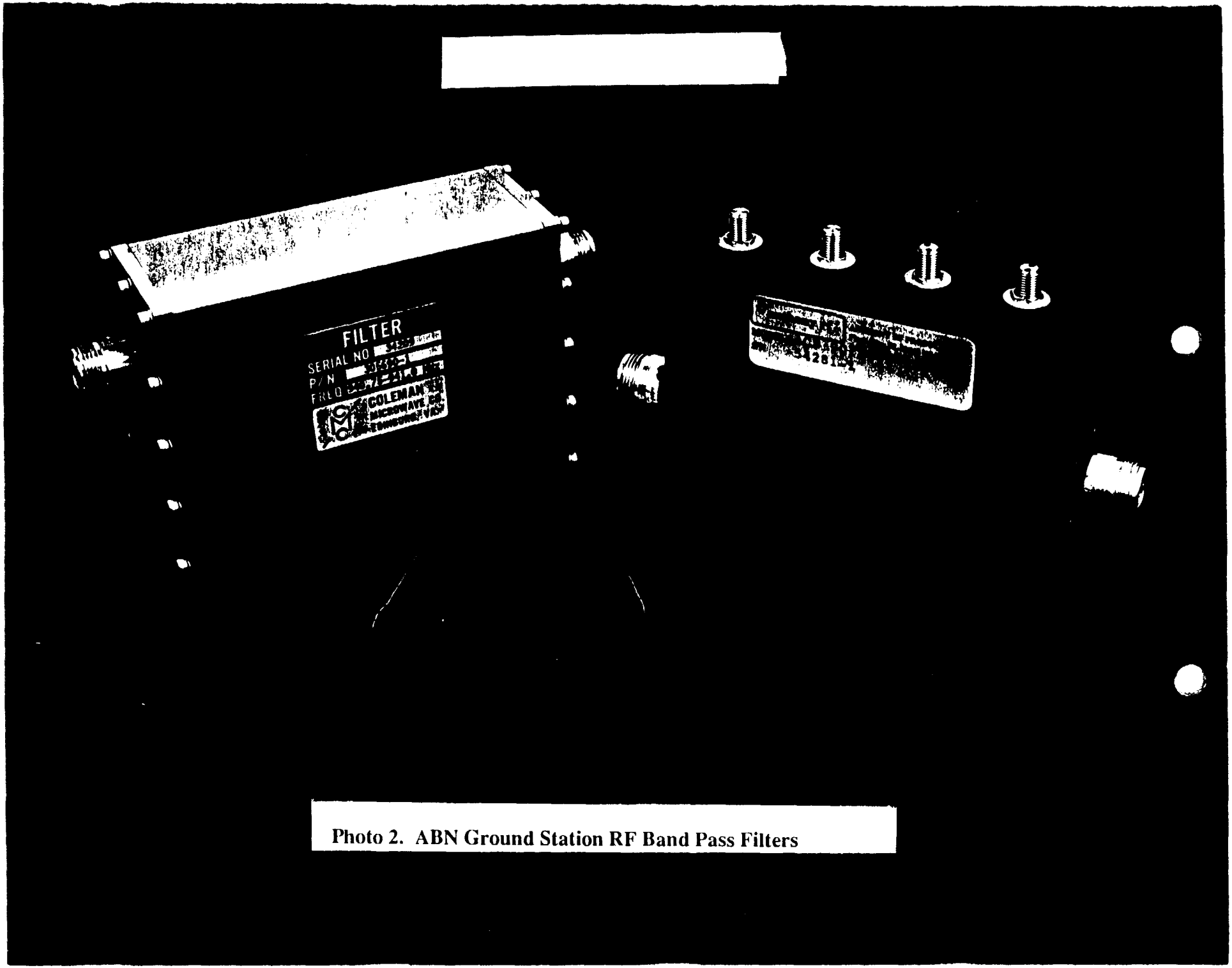


Photo 2. ABN Ground Station RF Band Pass Filters

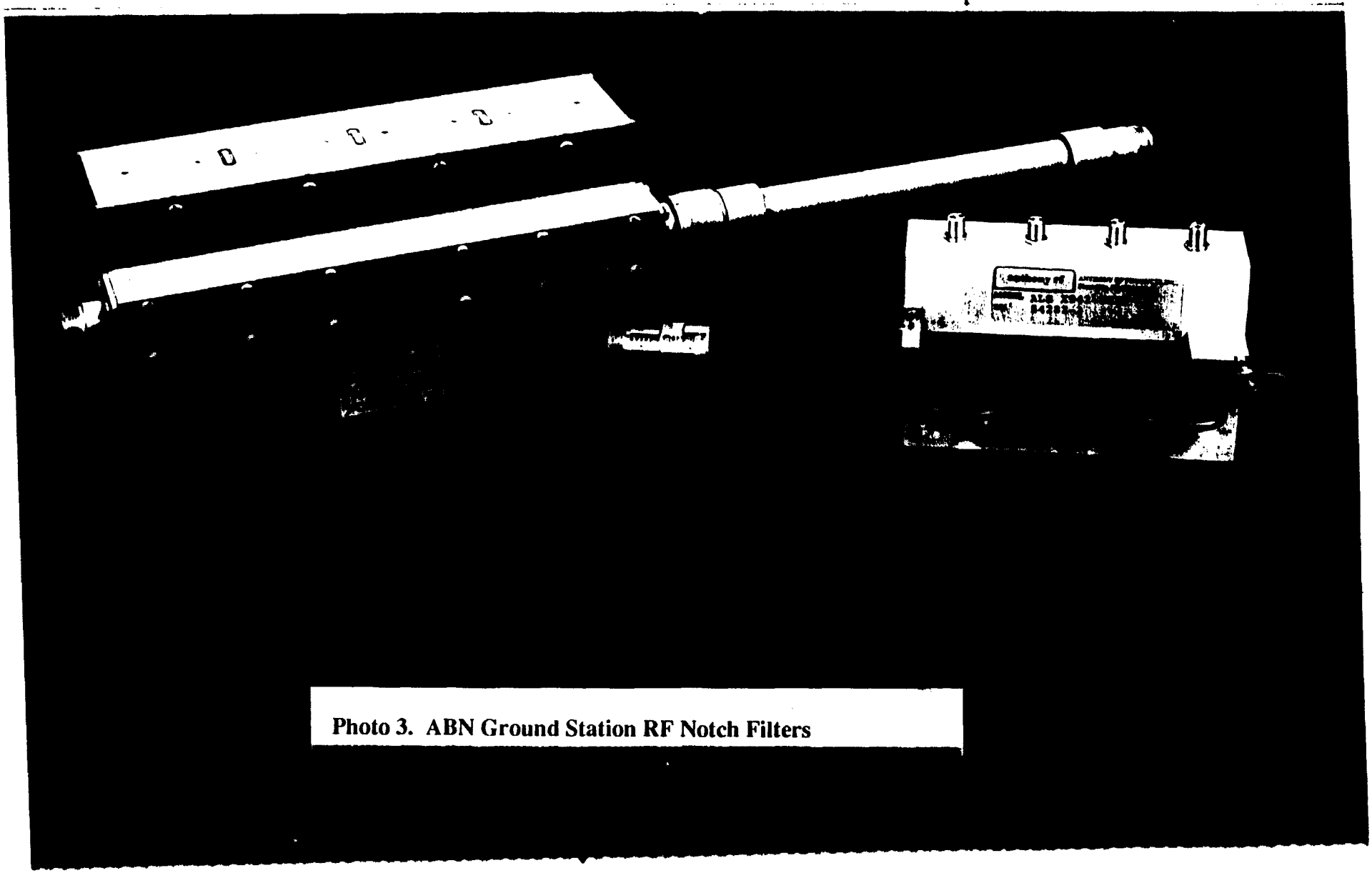


Photo 3. ABN Ground Station RF Notch Filters

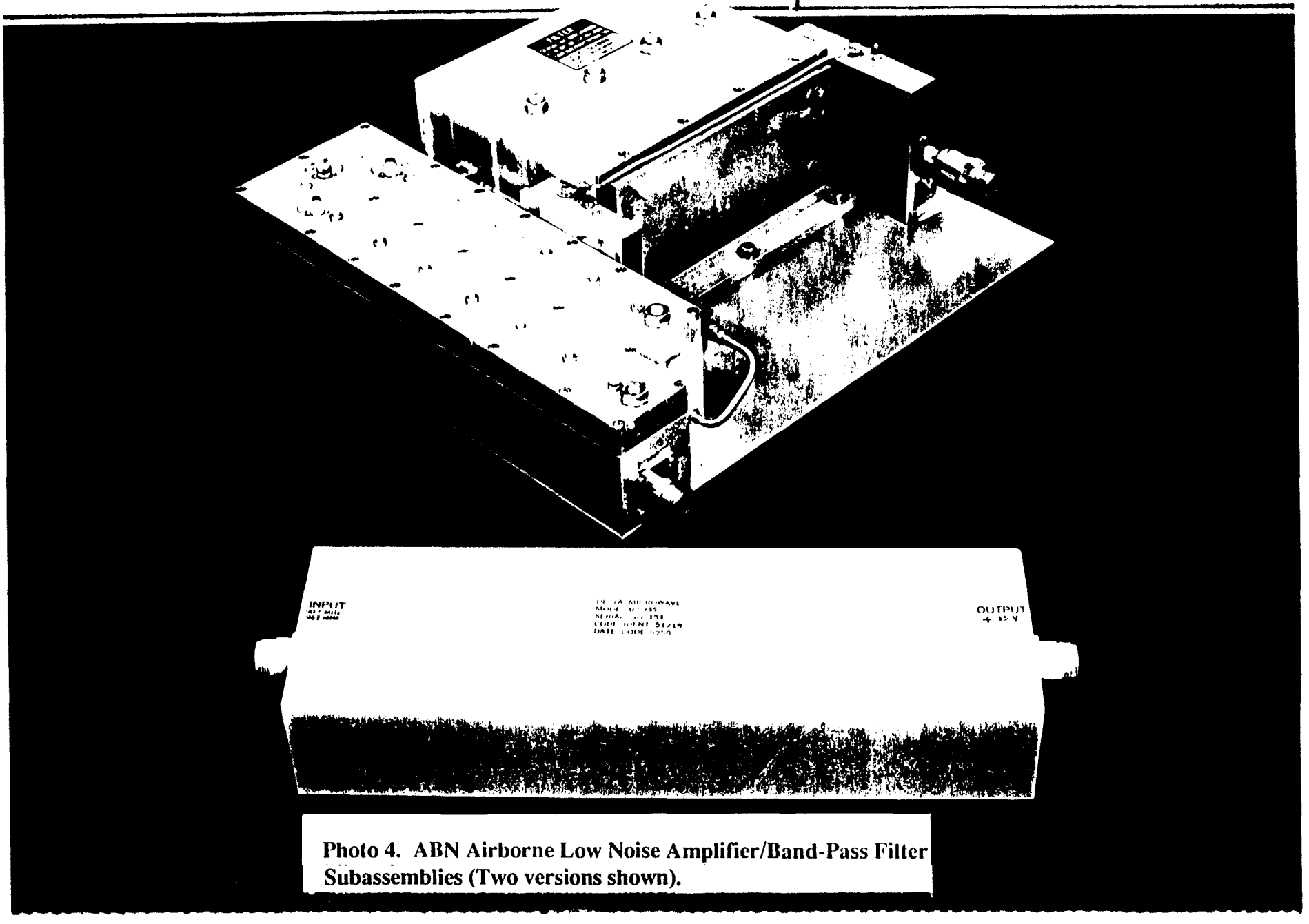


Photo 4. ABN Airborne Low Noise Amplifier/Band-Pass Filter Subassemblies (Two versions shown).

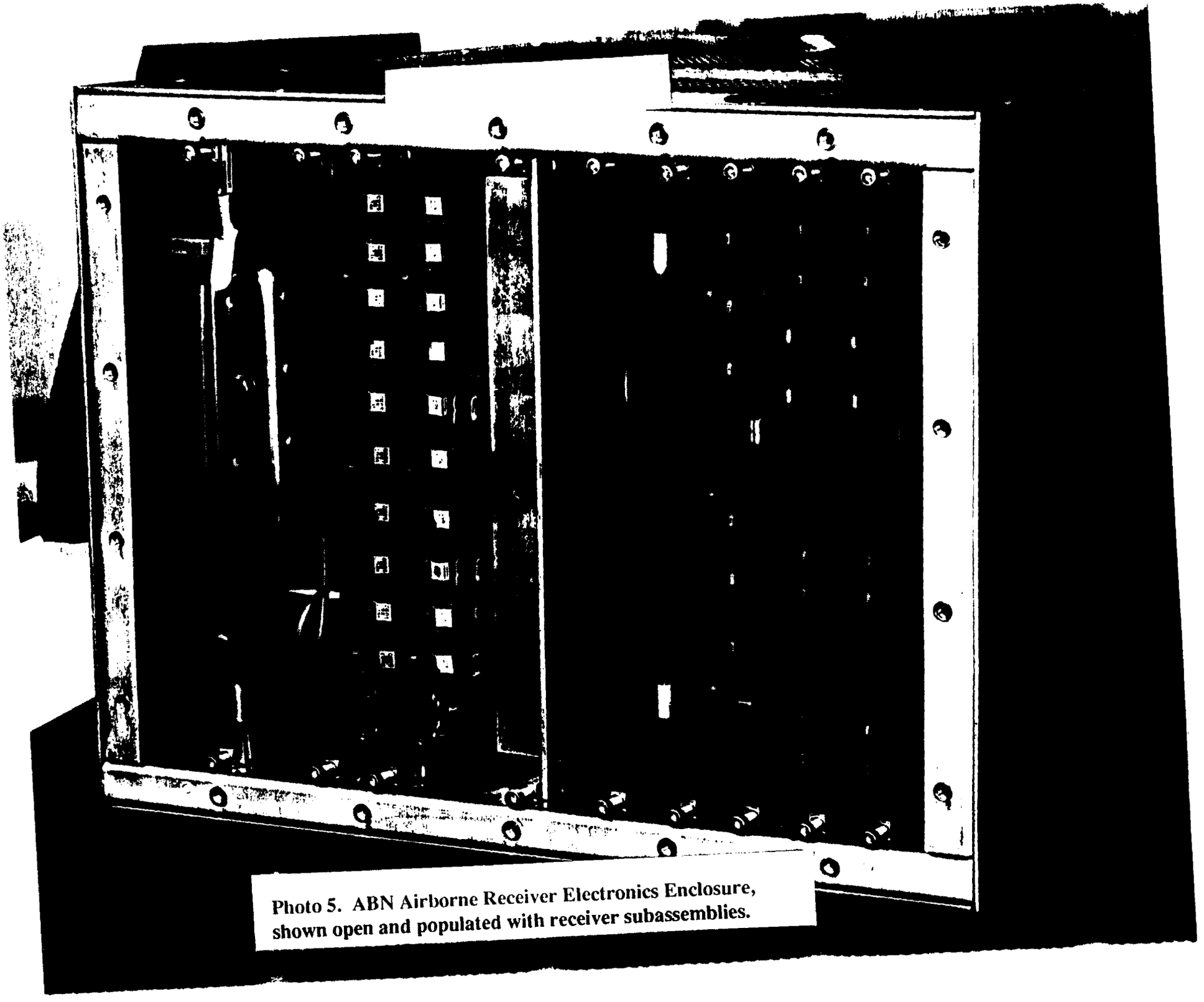


Photo 5. ABN Airborne Receiver Electronics Enclosure, shown open and populated with receiver subassemblies.